



State of Utah

Department of  
Environmental Quality

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*Executive Director*

DIVISION OF WATER QUALITY  
Walter L. Baker, P.E.  
*Director*

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*Lieutenant Governor*

February 5, 2007

**CERTIFIED MAIL**  
**(Return Receipt Requested)**

Mr. Bruce Hill, President & CEO  
UtahAmerican Energy, Inc.  
6750 North Airport Road  
P.O. Box 902  
Price, UT 84501

Dear Mr. Hill:

Subject: Salinity-Offset Program Funding Agreement for UPDES  
Permit Nos. UT0025674-Centennial Mines, UT00224368-  
Crandall Canyon Mine, and UT0025640-West Ridge Mine.

Attached please find an original copy of the fully executed Salinity-Offset Program Funding Agreement for the above referenced UPDES permits. As you are aware, the UtahAmerican Energy, Inc. (UEI) mine facilities, as referenced above by their respective UPDES Permits, are required to participate in and/or fund a salinity-offset program to compensate for the amount of salinity discharged from each facility which is above the one-ton/day permit limits.

A plan for the three mine facilities to fund a salinity-offset program was drafted by UEI and submitted to the Division of Water Quality (DWQ) in November, 2006. The plan, titled "Colorado River Salinity Offset Program Participation Plan", which is attached as "Exhibit A" to the Salinity-Offset Program Funding Agreement, was approved by DWQ and appended to each of the UPDES permits referenced above effective December 1, 2006.

With the Salinity-Offset Program Funding Agreement now finalized and the first payment received, DWQ expects the remaining payments from UEI to be made in accordance with the payment schedule as outlined in paragraph 2 of the Funding Agreement. DWQ appreciates your continued efforts.

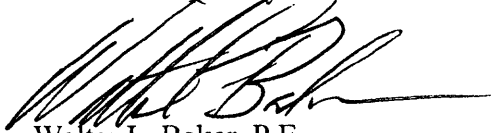
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*(Steve Fluke)*  
DIV. OF OIL, GAS & MINING  
*Steve C.*

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If you have any questions, please contact Jeff Studenka of this office at (801) 538-6779, or by e-mail at [jstudenka@utah.gov](mailto:jstudenka@utah.gov).

Sincerely,

Utah Water Quality Board



Walter L. Baker, P.E.  
Executive Secretary

WLB: JAS: mc

Enclosures

cc (w/ encl.):

- Qian Zhang, P.E., EPA Region VIII
- Laura Lockhart, Office of The Attorney General
- Claron Bjork, SE Utah District Health Department
- Dave Ariotti, DEQ District Engineer
- Pam Grubaugh-Littig, Division of Oil Gas & Mines
- Mark Quilter, Utah Department of Agriculture and Food
- Robert King, Division of Water Resources
- Jack Barnett, Colorado River Basin Salinity Control Forum
- Dave Shaver, UEI Centennial, Crandall Canyon, and West Ridge Mines
- Mike McKown, Murray Energy Corp.

**FUNDING AGREEMENT**  
**to**  
**Colorado River Salinity Offset Program Participation Plan**

THIS Funding Agreement, dated effective as of December 1, 2006 ("Effective Date"), is between the Utah Water Quality Board, Department of Environmental Quality, by and through the Executive Secretary of that Board ("Executive Secretary") and UtahAmerican Energy, Inc. ("U.E.I.").

**Recitals**

A. Andalex Resources, Inc. is a wholly-owned subsidiary of UtahAmerican Energy, Inc. Andalex Resources, Inc. is the operator of the Centennial Project coal mines ("Centennial"), located in Carbon County, Utah. Genwal Resources, Inc. is a wholly-owned subsidiary of Andalex Resources, Inc. and is the operator of the Crandall Canyon Mine ("Crandall") located in Emery County, Utah. West Ridge Resources, Inc. is a wholly-owned subsidiary of Andalex Resources, Inc. and is the operator of the West Ridge Mine ("West Ridge") located in Carbon County, Utah. These mines are collectively referred to as the "Mines". Centennial holds Utah Pollutant Discharge Elimination System ("UPDES") Permit UT0025674 (effective December 1, 2006), Crandall holds UPDES Permit UT0024368, and West Ridge holds UPDES Permit UT0025640 (collectively, "UPDES Permits"). The UPDES Permits are issued and managed by the Division of Water Quality ("DWQ").

B. In conjunction with the UPDES Permit renewal process and in order to meet total dissolved solids ("TDS") salt loading limits, U.E.I., on behalf of the Mines, proposed participation in a salinity offset program through a plan entitled "Colorado River Salinity Offset Program Participation Plan," a copy of which is attached as Exhibit A hereto ("Offset Participation Plan"). The Offset Participation Plan requires U.E.I. to fund an account pursuant to a funding agreement to purchase salinity credits as offsets against discharges made under the UPDES Permits.

C. This Funding Agreement is executed in furtherance of the Offset Participation Plan.

NOW, THEREFORE, for and in consideration of the covenants set forth in the Offset Participation Plan, the terms of this Funding Agreement, and other good and valuable consideration, the parties agree as follows:

1. Offset Participation Plan. The Executive Secretary, the Utah Department of Agriculture and Food ("UDAF") and the Colorado River Basin Salinity Control Forum ("CRBSCF") approve and ratify the Offset Participation Plan and acknowledge that the Plan establishes a salinity offset program under which U.E.I. is purchasing a total of 21,721 TDS credit tons ("Credit Tons") for the monetary sum of \$801,722 ("Credit Funds"). The number of Credit Tons purchased is based on U.E.I.'s current estimate of the number of Credit Tons that it will require to meet permit requirements for approximately 5 years. U.E.I. shall not be required to make any additional payments or incur any additional costs in order to purchase and use the 21,721 Credits even if the costs of the Offset program funded by the Plan increase.

2. Payment. U.E.I. shall pay the Credit Funds by the following payment schedule: 1) an initial payment of \$75,000 due on or before January 31, 2007; 2) a second payment of \$175,000 due on or before June 30, 2007; 3) a third payment of \$250,000 due on or before January 31, 2008; and 4) a fourth payment for the remaining balance amount of \$301,722 due on or before

January 31, 2009. Payments of the Credit Funds shall be made either by (i) certified check payable to the Utah Division of Water Quality delivered by a generally acceptable overnight delivery service to the address shown herein, or (ii) by bank wire transfer or ACH transfer pursuant to written instructions provided by the Utah Division of Water Quality ("DWQ") to U.E.I. no later than twenty (20) days prior to the due date of the payment.

3. Fund Account. DWQ shall establish an account ("Account") in the Operating Budget of the Department of Environmental Quality, within the State of Utah General Fund. Revenues and expenditures will be tracked through that Account as dedicated credits. The Credit Funds shall be dispersed from the Account by DWQ pursuant to procedures established by DWQ and consistent with any agreement between DWQ and Utah Department of Agriculture and Food for the purposes of funding certified Colorado River salinity offset programs. U.E.I. shall have no responsibility for the Credit Funds once the funds have been paid to DWQ pursuant to this Funding Agreement.

4. Monitoring and Reporting. U.E.I. shall monitor and report TDS concentrations in its mine discharge waters in UPDES Discharge Monitoring Reports ("DMR"), as specified in the UPDES permits and in the Offset Participation Plan. U.E.I. shall also calculate and report by the 28<sup>th</sup> of each month the number of TDS tons discharged by each of the Mines in the previous month in excess of their respective TDS limits. U.E.I. will make that calculation for each of the Mines as follows:

- a. U.E.I. will estimate the total number of TDS tons released by the Mine. This number will be based on statistically appropriate methods which consider effluent outflows as measured and sampling of those outflows for TDS.
- b. U.E.I. will subtract from the number derived in (a) the TDS permit limit for the Mine.

The report submitted by U.E.I. shall show, for each of the Mines, the calculations described in this paragraph. The report shall be made in substantially the form illustrated in the TDS Tracking Spreadsheet Table of the Offset Participation Plan.

5. Use and reporting of credits. U.E.I.'s 21,721 Credit Tons shall be decreased initially by the number of TDS tons described in paragraph 6 of this Funding Agreement, and then shall be decreased monthly by the total number of TDS tons discharged by the Mines in excess of their TDS limits, as described in paragraph 4 of this Funding Agreement. U.E.I. will, by the 28<sup>th</sup> of each month, submit a report ("Credit Chart") with the number of Credit Tons used in the previous months, and the number that remain available for use in future months. The report shall be made in substantially the form illustrated in the TDS Tracking Spreadsheet Table of the Offset Participation Plan.

6. Credits for period before execution of this agreement. Using the methods and forms described in paragraph 4 of this Funding Agreement, U.E.I. shall calculate and report, by January 28, 2007, the number of TDS tons discharged by the Crandall Canyon Mine in the period between February 1, 2006 and December 31, 2006, by the West Ridge Mine and the Centennial Mines in the period between May 1, 2006 and December 31, 2006. U.E.I. shall also submit a Credit Chart for that period, as described in Paragraph 5.

7. Effect of agreement. The Mines will be in compliance with the TDS limits of its UPDES Permit if it does not exceed the discharge volume limit in its permit, if U.E.I. has sufficient Credit Tons remaining to accommodate the TDS discharges in excess of the permit limits for TDS, and if U.E.I. is current with its submission of reports and other communications required under this Agreement.

8. Colorado River Salinity Program. DWQ shall be solely responsible for use of the Credit Funds and approval of projects to apply the Credit Funds in accordance with applicable law and requirements of the Colorado River Salinity Program. U.E.I. shall have no responsibility for or obligation to establish, participate in, monitor or make any additional payments toward any salinity programs used to create offsets under this Agreement.

9. Termination. This Funding Agreement will terminate on December 31, 2021 or on the date that U.E.I. has used all of the 21,721 Credit Tons funded under this agreement, whichever is earlier. In the event of remaining TDS credit tons funded under this agreement on or after December 31, 2021, the parties have previously agreed that the remaining credit tons shall be null and void.

10. Miscellaneous.

a. All notices or required communications under this Funding Agreement shall be in writing, and shall be addressed as follows:

If to U.E.I.:

UtahAmerican Energy, Inc.  
6750 North Airport Road  
P.O. Box 902  
Price, Utah 84501  
Attention: President

If to DWQ:

Division of Water Quality  
288 North 1460 West  
PO Box 144870  
Salt Lake City, UT 84114-4870  
Attention: Executive Secretary

Any party may change its address by notice to the other parties. Notices or other communications to DWQ or the Executive Secretary must be received at the offices of the DWQ by 5 p.m. on the date they are due.

b. This Funding Agreement may not be altered or amended, nor may any rights hereunder be waived, except by an instrument in writing executed by the party or parties to be changed with such amendment or waiver.

c. No provision of this Funding Agreement shall, nor shall it be interpreted to, amend, modify or waive any provision of the UPDES Permits. No provision of this Funding Agreement, including paragraph 10.a., shall, nor shall it be interpreted to, amend, modify or waive the right of the Executive Secretary to modify or terminate the UPDES Permits as permitted by law.

d. U.E.I. may assign or transfer U.E.I.'s interest in and to this Funding Agreement in conjunction with approved sale or transfer of the UPDES Permits or sale or transfer of either of the Mines.

e. This Funding Agreement, together with the Offset Participation Plan, and the UPDES Permits constitutes the entire understanding among the parties with respect to the subject matter hereof. No representation, warranty, covenant, agreement, promise, inducement or statement, whether oral or written, has been made by the parties that is not set forth in this Funding Agreement.

f. This Funding Agreement may be executed in multiple counterparts, each of which shall be deemed an original but which together shall constitute one and the same instrument.

g. This Funding Agreement and all of its terms and provisions shall be governed by and interpreted according to the laws of the State of Utah. Any judicial action brought under this Agreement shall be brought in a court of appropriate jurisdiction within the State of Utah.

THE UNDERSIGNED PARTIES have executed this Funding Agreement as of the Effective Date.

**Division of Water Quality  
Department of Environmental Quality  
State of Utah**

By the Water Quality Board

By: 

Its: Executive Secretary

Approved as to form and content:

  
Office of the Utah Attorney General

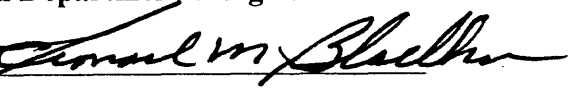
**UtahAmerican Energy, Inc.**

By: P. Bruce Hill

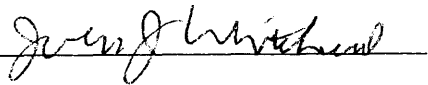
Its: PRESIDENT & CEO

JOINED AND RATIFIED for the sole purposes of Paragraph 1 herein:

**Utah Department of Agriculture and Food**

By: 

**Colorado River Basin Salinity Control Forum**

By: 

**Exhibit A**  
**To Funding Agreement**

**Colorado River Salinity Offset Program Participation Plan**



## **Colorado River Salinity Offset Program Participation Plan UtahAmerican Energy, Inc.**

### **Introduction**

UtahAmerican Energy, Inc. (U.E.I.), through its Utah subsidiaries, operates three coal facilities that hold active Utah Pollutant Discharge Elimination System (UPDES) Individual Permits for discharging intercepted groundwater and/or storm water runoff to waters of the State. The UPDES permit program is operated by the Utah Department of Environmental Quality's Division of Water Quality (DWQ). Because the receiving waters for all of these facilities are ultimately tributary to the Colorado River, the UPDES permits also incorporate Colorado River Basin Salinity Control Forum (CRBSCF) salinity standards and relevant implementation policies.

The three UtahAmerican Energy facilities are: the Genwal Resources, Inc. Crandall Canyon Mine, the West Ridge Resources, Inc. West Ridge Mine, and the Andalex Resources, Inc. Centennial Project. The Crandall Canyon Mine and West Ridge Mine are co-owned by U.E.I. (50%) and Intermountain Power Agency (50%), and operated by U.E.I. through its Utah subsidiaries. The Centennial Project includes the co-located Aberdeen and Pinnacle mines, and is totally owned by U.E.I. and operated by Andalex Resources, Inc., a wholly-owned subsidiary of U.E.I. The three UPDES Individual Permits for these facilities are listed below.

| <b>FACILITY</b>      | <b>UPDES PERMIT No.</b> | <b>RECEIVING WATER</b>      |
|----------------------|-------------------------|-----------------------------|
| Crandall Canyon Mine | UT0024368               | Crandall Creek              |
| West Ridge Mine      | UT0025640               | C Canyon ephemeral drainage |
| Centennial Project   | UT0025674               | Deadman Canyon Creek        |

Each of these three permits incorporates a CRBSCF requirement that limits salt load to less than one ton/day. Salt load is a function of the quantity (rate) of water discharged and its total dissolved solids (TDS) concentration. All water that has been discharged historically at the U.E.I. mines is groundwater that has been intercepted during mining. This groundwater must be pumped out of mine workings in order to maintain a safe and viable mine operation. (Although permitted discharge outfalls are also in place at each facility to discharge storm water runoff, they have never been used because all runoff has been stored in sediment retention ponds located upstream of the outfalls.) As will be discussed later, the one ton/day salt load limit has become difficult to meet at these mines.

DWQ and the CRBSCF recognize that neither the quantity nor quality of groundwater intercepted by mines can be easily controlled. They also recognize that discharging intercepted groundwater is a different situation than discharging many other industrial wastewaters. One of the CRBSCF implementation policies that applies to intercepted groundwater is to allow salt offset. The DWQ administers a Colorado River Salinity Offset Program wherein salinity credits can be purchased as offsets against UPDES-permitted discharges. This program enables mines

### **West Ridge Mine**

The West Ridge Mine has been operating since 1999. Originally, the mine was covered by the *UPDES General Permit for Coal Mine Discharges*. Currently, it is covered under an individual UPDES Permit (#UT0025640), with a permit term from May 1, 2006 through April 30, 2011. There are two permitted discharges for this facility: Outfall 001 is located immediately downstream from the sediment pond that collects all surface runoff from the mine surface facilities; and Outfall 002 collects and discharges intercepted groundwater from an underground sump located within the mine. Outfall 001 has never discharged. Outfall 002 has essentially discharged continuously since January 2002. The receiving stream for these discharges is an ephemeral channel in C Canyon, which is tributary to Grassy Trail Creek in the Price River Basin.

When discharge first began at West Ridge, flows were minimal and sporadic. They soon became continuous, and have continued to increase. They appear to be leveling off, however, at an average rate of about 700 gpm.

Groundwater intercepted by the West Ridge Mine contains much higher dissolved solids than does the Crandall Canyon Mine. This is a typical difference between groundwater found in the Wasatch Plateau and that found in the Book Cliffs. TDS has averaged about 1,300 mg/L since January 2003, however it has recently trended upward.

Due to both increased discharge rates and increased TDS concentrations, this mine has also had difficulties meeting the one ton/day salt load limit. This made it necessary to obtain an individual UPDES Permit rather than continue coverage under the *General Permit*.

### **Centennial Project**

The Centennial Project Mines (Pinnacle and Aberdeen mines) have been operating since 1980. Throughout that time, four discharge outfalls have been covered under a *UPDES General Permit for Coal Mine Discharges* (No. UTG040008), which expires on April 30, 2008. Outfalls 001 and 003 are located downstream of sediment ponds that collect runoff generated by the surface facilities. Neither of these outfalls has ever discharged. Outfall 002 releases any discharge from the Pinnacle Mine, which has only occurred during one month in the last several years, and it is not expected to occur again in the near future. Discharge from the Aberdeen Mine is released via Outfall 004. Though discharge occurred only sporadically for many years, recently it has become more frequent and requires release at greater rates.

Receiving water for these outfalls is the ephemeral channel in Deadman Canyon. Deadman Creek enters Hayes Wash, which is tributary to the Price River.

The trend of increasing discharge rates is expected to continue in the near future. While recent flows have averaged about 350 gpm, the rate is expected to double over the next several years. Further, the duration of discharge during any given 24-hour period has increased over time, and is expected to approach continuous discharge in the very near future. TDS concentrations of the groundwater intercepted at this location have averaged about 1,990 mg/L since 2005, though the recent trend has been downward.

and is a reasonable projection of offset need. (Should offset credits be depleted before five years, U.E.I. would need to initiate participation in the Offset Program anew.)

The following table shows the predicted salt load derivation at each facility. It also shows a calculated net total salt offset needed of 11.9 tons/day (after the allowable one ton/day/facility is subtracted). Over a five year period, this results in a total amount of 21,721 tons of salt credits that U.E.I. will need to purchase.

| <b>FACILITY</b>                         | <b>ASSUMED<br/>FUTURE<br/>AVERAGE<br/>FLOW RATE<br/>(gpm)</b> | <b>ASSUMED FUTURE<br/>AVERAGE TDS<br/>CONCENTRATION<br/>(mg/L)</b> | <b>CALCULATED<br/>AVERAGE DAILY<br/>SALT LOAD<br/>(tons/day)</b> |
|---|---|--|--|
| Crandall Canyon Mine                    | 600   | 400  | 1.44   |
| West Ridge Mine                         | 700   | 1,450  | 6.10   |
| Centennial Project                      | 700   | 1,750  | 7.36   |
| <b>Total Salt Load</b>                  |   |  | 14.90  |
| <b>Net Total of Salt Offset Needed*</b> |   |  | 11.90  |

\*(after subtraction of allowable one ton/day/facility)

The unit costs that DWQ will assess to U.E.I. will vary according to the salinity-control unit in which the discharges are located. All three facilities are in the Upper Colorado River Basin's Price-San Rafael Unit, but they occur within two different sub-units, with different efficiency ratios. The Crandall Canyon Mine is within the San-Rafael unit, and the remaining two facilities are in the Price unit.

### **Plan Monitoring Schedule**

In addition to the routine monitoring and reporting via Discharge Monitoring Reports (DMRs) that is currently required for each of the UPDES permits, U.E.I. will also need to closely track its use of the banked salt credits. The basis for this tracking will be the average daily TDS load for each month, which is reported as tons per day on the monthly DMRs. In addition to each of the three facilities submitting their individual DMRs each month, U.E.I. will submit a tracking spreadsheet to DWQ each month. The spreadsheet will be similar to the one attached to this plan. It will include an accounting of the salt credits used by each facility for the current month; a cumulative, running total of salt credits depleted up to and including the current month; and a record of the remaining available salt credits.

The tracking spreadsheet will be evaluated regularly by U.E.I. and by DWQ as it will be an attachment to the monthly DMR forms for each facility, which are to be submitted by the 28<sup>th</sup> of

UtahAmerican Energy, Inc.  
Salinity Offset Program

TDS Tracking Spreadsheet\*

| Month/Year  | Average Daily TDS Load (tons) |                         |                                 |       | TDS Credits Used (tons)                 |               | Available TDS Credits (tons) | Percentage of Fund Remaining |
|-------------|-------------------------------|-------------------------|---------------------------------|-------|---|---------------|------------------------------|------------------------------|
|             | Crandall Canyon <sup>1</sup>  | West Ridge <sup>2</sup> | Centennial Project <sup>3</sup> | Total | Net Total <sup>4</sup>                  | Current Month | Cumulative                   |                              |
|             |                               |                         |                                 |       | Initial Number of TDS Credits Purchased |               |                              |                              |
| Aug-08      | 2.7                           | 6.2                     | 8.2                             | 17.1  | 14.1                                    | 437           | 437                          | 21,721 100.00%               |
| Sep-08      | 1.6                           | 6.1                     | 7.8                             | 15.5  | 12.5                                    | 375           | 812                          | 21,284 98.0%                 |
| Oct-08      | 0.8                           | 7.9                     | 7.9                             | 16.6  | 13.6                                    | 422           | 1,234                        | 20,909 96.3%                 |
| Nov-08      | 2.5                           | 8.1                     | 7.1                             | 17.7  | 14.7                                    | 441           | 1,675                        | 20,487 94.3%                 |
| Dec-08      | 3                             | 5.6                     | 8                               | 16.6  | 13.6                                    | 422           | 2,096                        | 20,046 92.3%                 |
| Jan-09      | 1.6                           | 3.2                     | 6                               | 10.8  | 7.8                                     | 242           | 2,338                        | 19,625 90.3%                 |
| Feb-09 etc. |                               |                         |                                 |       |   |               |                              | 19,383 89.2%                 |
| Mar-09      |                               |                         |                                 |       |   |               |                              |                              |
| Apr-09      |                               |                         |                                 |       |   |               |                              |                              |

Notes:

- 1: Load obtained from DMRs for UPDES Permit #UT0024368
- 2: Load obtained from DMRs for UPDES Permit #UT0025640
- 3: Load obtained from DMRs for UPDES Permit #UT0025674
- 4: After subtraction of 1 ton/day from each of the three facilities

\*All numbers in table are hypothetical and used only to show example calculations

Crandall Canyon offset begins Feb. 1, 2006, West Ridge and Centennial offsets begin May 1, 2006.